POLAR BEAR TAGGING

RADSTOCK BAY

June 1979

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ABSTRACT

Twelve polar bears were captured during a 3 day search for radio equipped bears along the south Devon Island coast. Nine of the captured animals were recaptures and two had been equipped with radio collars and harnesses in 1978. Of these, only one animal had retained the transmitter. No bears were located by radio in an area extending east to Maxwell Bay and west to Wellington Channel.

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INTRODUCTION

During the summer of 1978, seven bears in the Radstock Bay area were captured, tagged and equipped with radio transmitters. This project was undertaken jointly by the Northwest Territories Wildlife Service, Canadian Wildlife Service, and the U.S. Fish and Wildlife Service, to evaluate the adequacy of radio collars and harness design. In June 1979, an effort was made to locate the collared bears and determine the state of the animals and equipment.

METHODS

On June 17, 18 and 19, helicopter surveys at altitudes ranging from 30-600 m were flown along the south Devon coast as far east as Maxwell Bay and as far west as Wellington Channel (Figs. 1, 2, 3). Frequencies of the seven bears were also scanned on the flight to Radstock Bay from Resolute Bay. Any bear sighted was immobilized and tagged by the standard methods used by the N.W.T. Wildlife Service (Schweinsburg et al. 1980). If the tags on recaptured bears were damaged, they were replaced with new tags.

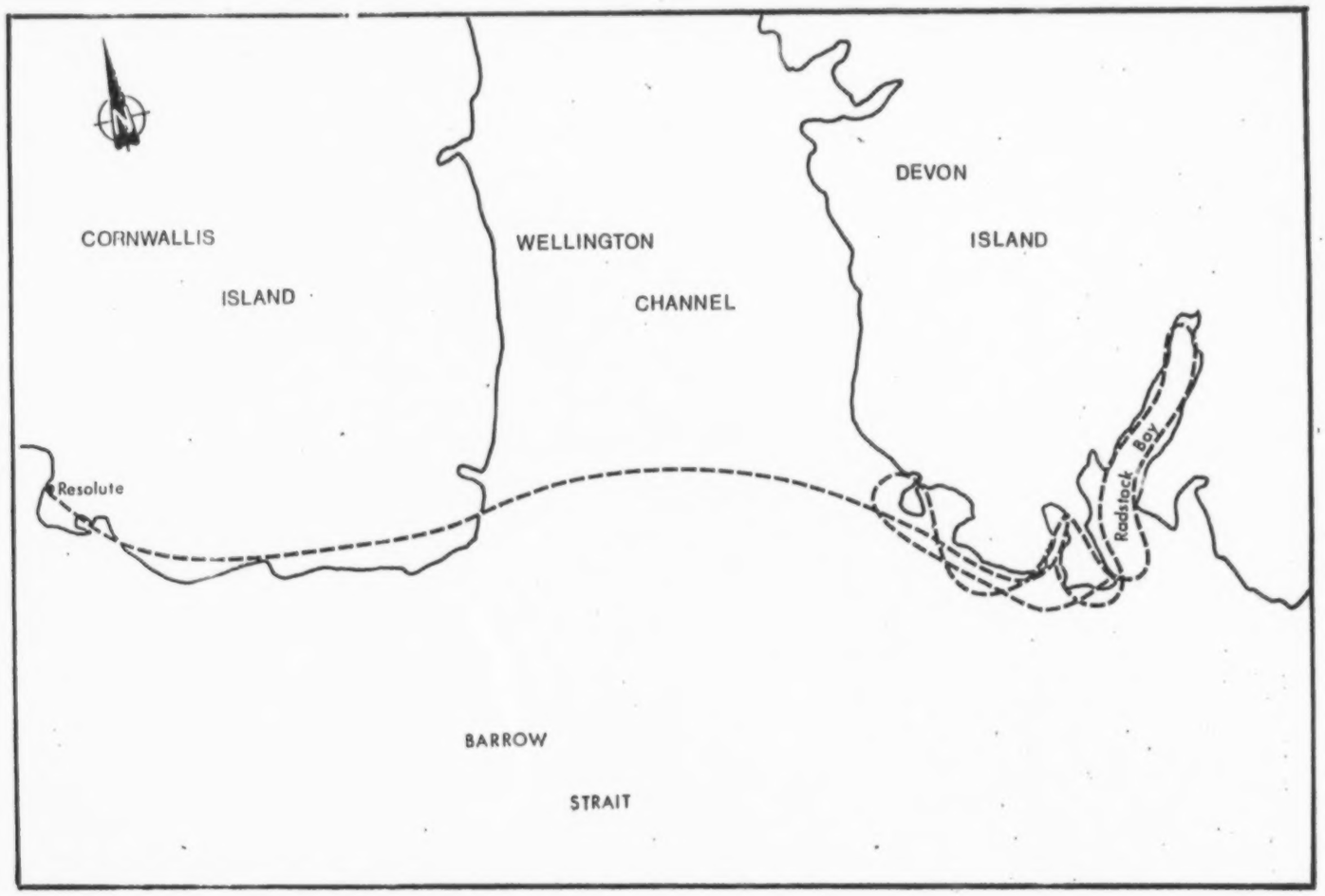

Figure 1. June 17, 1979 helicopter survey to search for bears along south Devon coast, N.W.T.

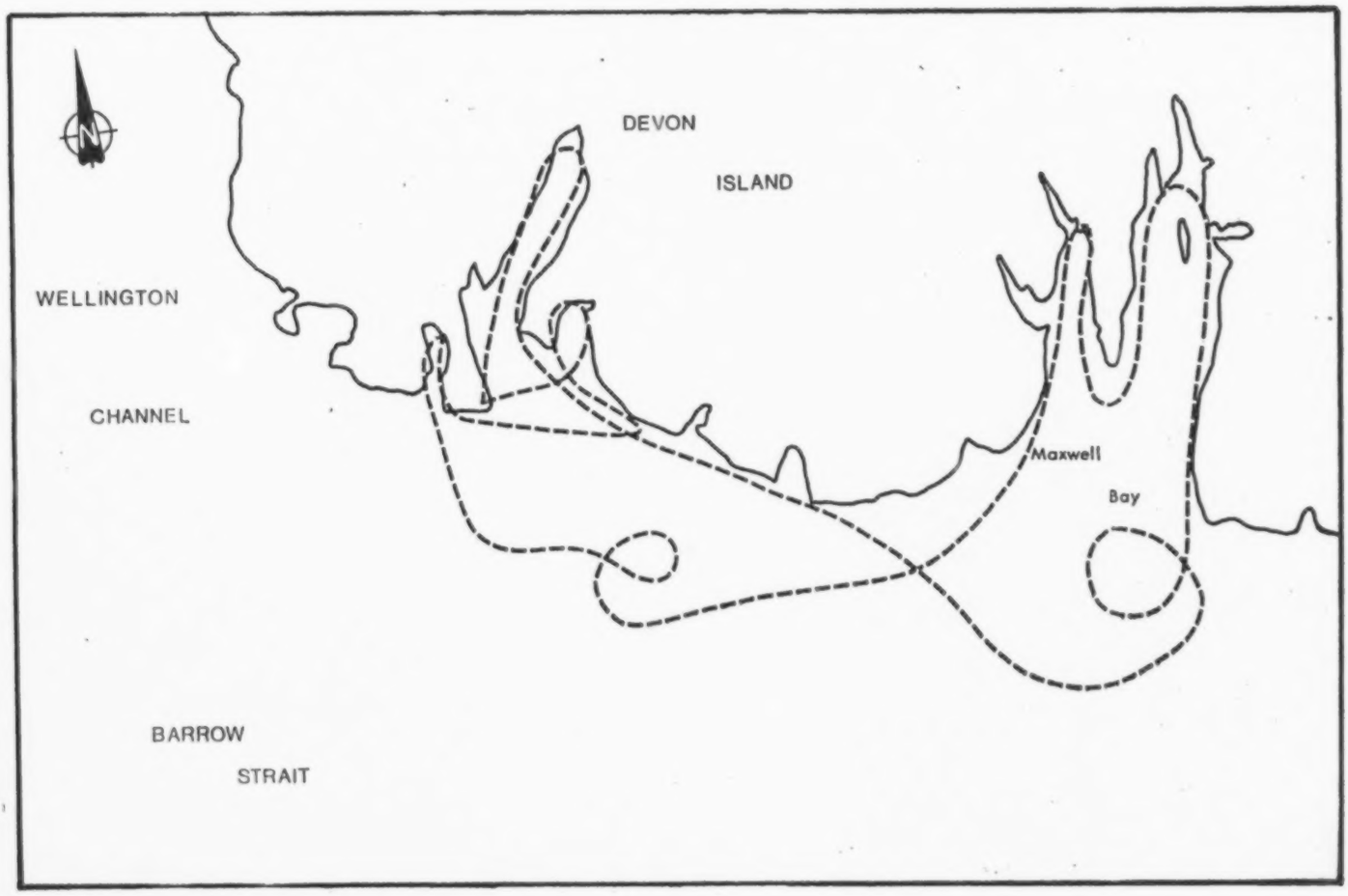

Figure 2. June 18, 1979 helicopter survey to search for bears along south Devon coast, N.W.T.

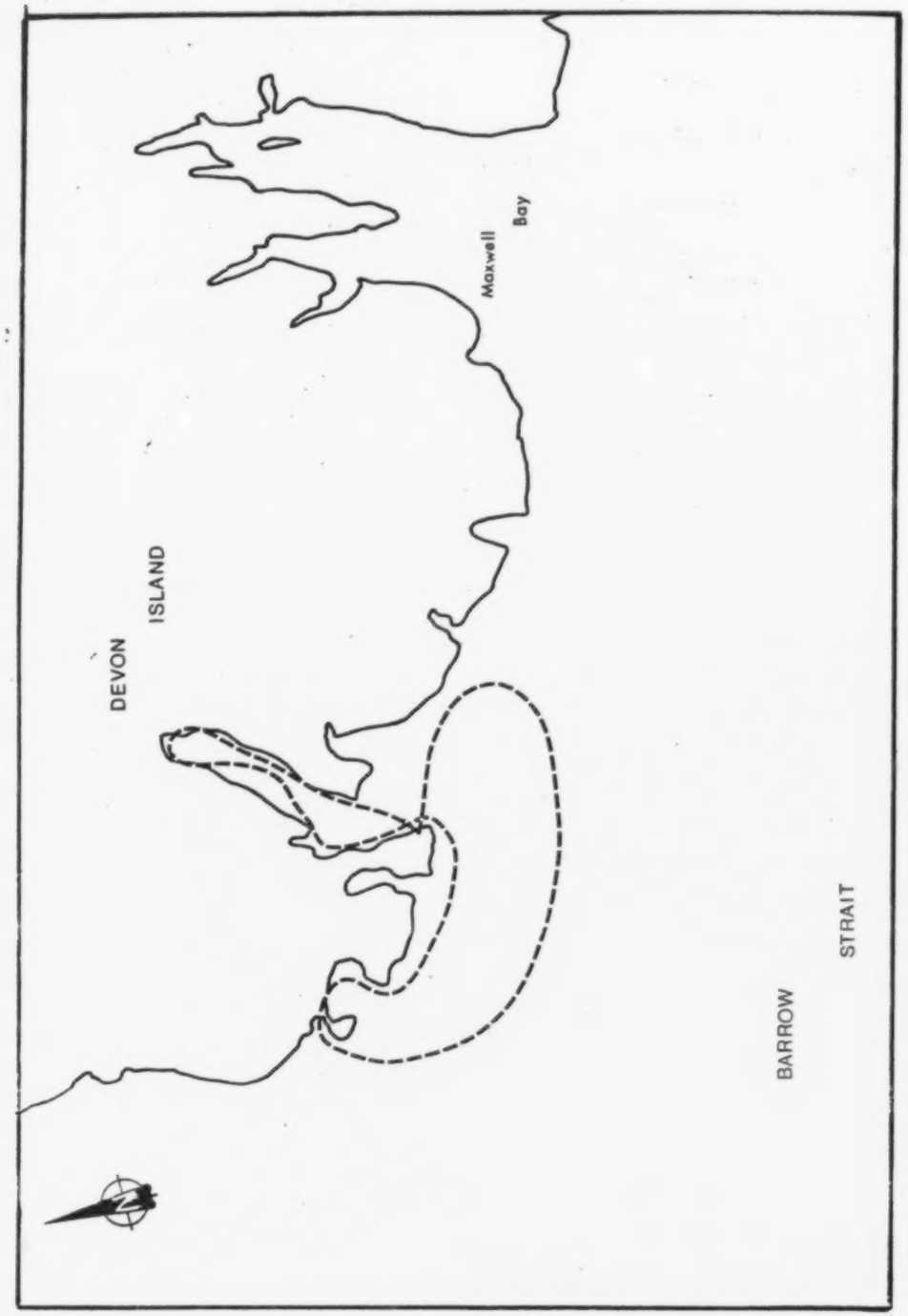

Figure 3. June 19, 1979 helicopter survey to search for bears along south Devon coast, N.W.T.

RESULTS

No bears were located using the radio receiver. Twelve bears were sighted and captured (Table 1). Of those, three had not been previously tagged and two had been radio collared in 1978. (Table 1).

Bear X4438 had been equipped with a collar and harness arrangement in 1978 but was wearing neither when recaptured near Cape Riley. The bear, which was lactating, was accompanied by a yearling X4439. The bears appeared to be in good condition and were beginning to moult. The adult female had a slight but definite rub mark on the fur around the top of her neck. There was also a long narrow rub mark extending across the back and down the sides of the animal. Concurrent with the rub mark was a healed scar about 30 cm long and 1 to 2 cm wide running dorso-ventrally just behind the left front leg. The extent and location of the scar would tend to indicate injury by the cable of the harness arrangement.

Bear X4351 had been equipped with both a collar and harness but was wearing only a wide black collar when recaptured near Swansea Point. The collar was removed by simply sliding it over the bear's head. No scars were found and only a very slight rub mark was evident on the top of the neck. The steel cable of the harness had

Table 1. Summary of polar bears captured on southwest Devon Island coast, N.W.T. June 1979.

Tattoo number	Ear tag	Field age	Sex	Weight (kg)	Occurrence	Lat.	Long.
2071	4040	Adult	M	190	Recapture	74°45'	90°58'
4438	4438	Adult	F	170	Recapture	74°39'	91°40'
4439	4439	Yearling	M	84	Recapture	74°39'	91°40'
3896	5203	Adult	F	120	Recapture	74°36'	90°30'
5204	5204	Coy*	F	33	Capture	74°36'	90°30'
5205	5205	Coy	M	30	Capture	74°36'	90°30'
3711	5206	Adult	M	310	Recapture	74°35'	90°35'
5207	5207	Subadult	F	94	Capture	74°33'	90°03'
3189	4351	Adult	F	190	Recapture	74°48'	90°52'
4352	4352	Yearling	F	-	Recapture	74°48'	90°52'
4353	4353	Yearling	F	-	Recapture	74°48'	90°52'
3569	5208	Adult	M	348	Recapture	74°52'	90°42'

* Cub of the year.

broken off at its attachment to the base of the radio collar. There was no sign of any cable coming from the top of the collar. The transmitter was not functioning when the animal was captured but began to transmit weakly for about an hour after being removed. Although the black tape covering the collar was intact in most places, it had been removed from around the bolts fastening the collar together and on either end of the transmitter itself.

The yearlings accompanying X4351 each received a total of 340 mg. of Sernylan but did not become immobile. Consequently they were not handled. All three bears appeared to be in good condition.

One bear was sighted on the south edge of Beechy Island and inspection from the air did not reveal any collar or harness. As the weather was rapidly closing in, we made no attempt to immobilize this animal.

No other bears from the group of seven collared in 1978 were found. The transmitters on those bears had either ceased to function or the bears had moved out of range. It appears that harnesses should be modified so as to prevent chafing injury to the bears, but yet resist the efforts of bears to remove them.

ACKNOWLEDGEMENTS

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LITERATURE CITED

Schweinsburg, R.E., J. Lee and P. Latour. 1980. Polar bear studies in eastern Lancaster Sound and Baffin Bay. N.W.T. Wildlife Service File Report No. 6. N.W.T. Wildlife Service, Yellowknife. 92 pp.